

AMENDMENTS TO THE CLAIMS

1 1. (Currently amended) An apparatus for
2 monitoring the movement of a patient's spine
3 comprising:
4 an elongated member adapted to be disposed
5 longitudinally adjacent to the patient's spine and
6 further adapted to be flexible in the midsagittal plane
7 and substantially inflexible in the frontal plane;
8 a first sensor mounted to the elongated
9 member and disposed to monitor flexion and extension
10 motion of the patient's spine in the midsagittal plane;
11 and
12 a second sensor mounted to the elongated
13 member and disposed to monitor lateral motion of the
14 patient's spine in the frontal plane.

1 2. (Previously presented) The apparatus of
2 claim 1 wherein the first sensor includes at least one
3 strain gage.

1 3. (Previously presented) The apparatus of
2 claim 2 wherein the second sensor is an optical sensor.

1 4. (Previously presented) The apparatus of
2 claim 1 wherein the second sensor is an optical sensor.

1 5. (Currently amended) The apparatus of claim 4
2 wherein the second sensor is an optical mouse ~~type~~ sensor.

1 6. (Currently amended) The apparatus of claim 4
2 further comprising a computer in electrical communication
3 with the second sensor, wherein the computer includes a
4 display having a cursor, wherein the second sensor controls
5 movement of the cursor, and further wherein the computer
6 interprets ~~detects~~ the position of the cursor to graphically
7 show lateral movement of the patient's spine on the display.

1 7. (Currently amended) The apparatus of claim 1
2 wherein the elongated member includes ~~is~~ a blade ~~shaped~~
3 ~~member~~ having a width in the frontal plane and a thickness
4 in the midsagittal plane, wherein the width is greater than
5 the thickness.

1 8. (Previously presented) The apparatus of
2 claim 1 wherein the elongated member has a first end and a
3 second end opposite the first end, and further wherein the
4 first sensor is mounted to the elongated member near the
5 first end and the second sensor is mounted to the elongated
6 member near the second end.

1 9. (Currently amended) The apparatus of claim 1
2 wherein the first sensor is adapted to be disposed along the
3 patient's spine at approximately the location of the 1st
4 sacral vertebrae.

1 10. (Currently amended) The apparatus of claim 9
2 wherein the second sensor is adapted to be disposed along

3 the patient's spine at approximately the location of the
4 12th thoracic vertebrae.

1 11. (Previously presented) The apparatus of
2 claim 1 further comprising a corset wearable by the patient
3 and having a pocket, wherein the elongated member is
4 substantially disposed inside of the pocket.

1 12. (Previously presented) The apparatus of
2 claim 11 wherein the second sensor is disposed inside of the
3 pocket.

1 13. (Previously presented) The apparatus of
2 claim 12 wherein the corset includes a track disposed inside
3 of the pocket, and further wherein the second sensor is an
4 optical sensor disposed to detect movement of the track as
5 the patient's spine moves laterally in the frontal plane.

1 14. (Previously presented) The apparatus of
2 claim 1 wherein the second sensor remains substantially
3 stationary in the frontal plane during lateral motion of the
4 patient's spine in the frontal plane.

1 15. (Currently amended) An apparatus for
2 monitoring the movement of a patient's spine
3 comprising:

4 an elongated member adapted to be disposed
5 longitudinally along the patient's spine;

6 a first sensor mounted to the elongated
7 member and disposed to monitor flexion and extension

8 motion of the patient's spine in the midsagittal plane,
9 wherein the first sensor includes at least one strain
10 gage; and
11 a second sensor mounted to the elongated
12 member and disposed to monitor lateral motion of the
13 patient's spine in the frontal plane.

1 16. (Currently amended) The apparatus of claim
2 15 wherein the first sensor is adapted to be disposed along
3 the patient's spine at approximately the location of the 1st
4 sacral vertebrae.

1 17. (Currently amended) An apparatus for
2 monitoring the movement of a patient's spine
3 comprising:

4 an elongated member adapted to be disposed
5 longitudinally along the patient's spine, wherein the
6 elongated member has a first end and a second end
7 opposite the first end;

8 a first sensor mounted to the elongated
9 member and disposed to monitor flexion and extension
10 motion of the patient's lumbar spine in the midsagittal
11 plane, wherein the first sensor is mounted to the
12 elongated member near the first end; and

13 a second sensor mounted to the elongated
14 member and disposed to monitor lateral motion of the
15 patient's lumbar spine in the frontal plane, wherein
16 the second sensor is an optical sensor, and further
17 wherein the second sensor is mounted to the elongated
18 member near the second end.

1 18. (Currently amended) The apparatus of claim
2 17 wherein the second sensor is an optical mouse ~~type~~
3 sensor.

1 19. (Currently amended) The apparatus of claim 17
2 further comprising a computer in electrical communication
3 with the second sensor, wherein the computer includes a
4 display having a cursor, wherein the second sensor controls
5 movement of the cursor, and further wherein the computer
6 interprets ~~detects~~ the position of the cursor to graphically
7 show lateral movement of the patient's spine on the display.

1 20. (Previously presented) The apparatus of
2 claim 17 further comprising a corset wearable by the
3 patient, wherein the corset includes a pocket and a track
4 disposed inside of the pocket, and further wherein the
5 second sensor is disposed inside of the pocket to detect
6 movement of the track as the patient's spine moves laterally
7 in the frontal plane.